

THE MENTOR

"A Wise and Faithful Guide and Friend"

VOL. I

No. 34

GAME BIRDS OF AMERICA

RUFFED GROUSE

CANADA GOOSE

BOB WHITE

MALLARD

WILD TURKEY

CANVASBACK

By EDWARD H. FORBUSH, *State Ornithologist of Massachusetts*

Author of "Useful Birds and Their Protection," "A History of Game Birds, Wild Fowl, and Shore Birds," etc.

NORTH AMERICA, when discovered by Columbus, probably contained more game birds than any other continent. The great falling off in the number of these birds in recent times has been accentuated by the extinction of the passenger pigeon and the Eskimo curlew, and the rapid disappearance of many others, among which are the whooping crane and the sandhill crane, great birds that are gradually being swept from the continent. The upland plover, formerly abundant in every suitable grassy region east of the Rocky Mountains, is now facing extinction, and its salvation is beyond hope, unless the regulations, protecting it at all times, recently made by the United States Department of Agriculture, under the Weeks-McLean law, can be enforced. The rails do not appear to have decreased in number quite so rapidly as have the shore birds; but from the king rail, the finest of them all, down to the sora they are much less numerous than in the early years of the last century.

THE RUFFED GROUSE

"Whir-r-r-r-r-r—clip-clip-clip—" Heavens! what was that? Anyhow, it's gone, and nobody's hurt. How well I recall the startling sound that checked in an instant my headlong pursuit of a baby cottontail rabbit when, from the leaves almost beneath my feet, up sprang a feathered projectile with thundering wings, which sped away in headlong flight through whirling leaves and bending twigs, disappearing in an instant in the thick of the



A RUFFED GROUSE NEST

trees. There I (aged eight) stood, gazing after this new wonder, while little Cottontail made good its escape. I had seen my first grouse, the king of game birds.

In the North this grouse is known as the partridge; Southerners recognize it as the pheasant; but how few of us know more about it! How few realize that it flies quietly when undisturbed, or that it has a variety of notes, ranging from the soft, cooing mother's call to the harsh



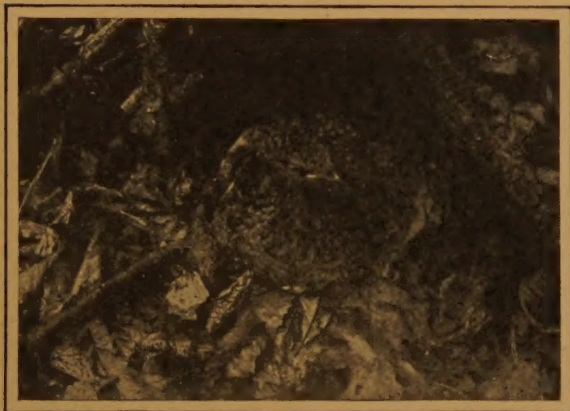
YOUNG GROUSE

The young bird learning to perch above the reach of prowling enemies.



YOUNG GROUSE

Confident that they are hidden from the camera man.



RUFFED GROUSE ON NEST

This picture was taken by leaving the camera set all night. The bird itself pulled a thread which released the shutter early in the morning.

The mother does not commonly cover them on leaving the nest; although a bird was once seen to do so by dropping straws and leaves on her back and then sliding out from under.

What keeps the eggs from harm for weeks in the open woods? The grouse often brings off her young safely not far from the home of hawk, crow, or fox. Does the mother bird leave no scent by which her many four-footed enemies can find her? In one case, at least, well trained pointer and setter dogs could not find the bird on the nest, even after she had walked away and returned to it. Sometimes a dog or a fox blunders on the nest, and then the mother, every feather on end, flies at him in an attempt to drive him away; but this does not scare or deceive cunning Reynard, and in an instant his mouth is full of eggs. Sometimes a prowling cat catches the mother on her eggs at night, and that ends the family history; but in the majority of cases the eggs safely hatch.

scream or squeal with which she hurls herself at some enemy of her brood. Many have heard the drumming of the male, "*Thump—thump—thump—thump, thump; thump, thump—rup, rup rup rup r-r-r-r-r-r-r-r*"; but how many know that some seasons in some localities they do not drum at all? And why not?

In my notebooks the nest of the ruffed grouse figures as a hollow in the ground, lined with dead leaves or pine needles. The eggs range from seven to twelve; in one case fifteen.



GROUSE

A favorite drumming log and trysting place.

The little ones all come from the shell together, and are fully equipped to find their own living. They need the mother only as guard, defender, and shelter. When they pop out of the eggs they leave the nest forever, and thenceforth they are at home in Robin Hood's barn, and sleep wherever weariness or night overtakes them. A little roving band of downy, brownie, striped chicks, they keep close together, running here and there, always hunting, picking insects from grass, ground, and foliage; while the mother, stalking behind, herds them along with soft and gentle calls, acting as rear guard, to give warning of any enemy that may be upon their trail, to lead the destroyer away if she can, to defend them with her life if she cannot, and to brood them beneath her maternal breast whenever they are wet, cold, tired, or sleepy. Wherever night finds them there they snuggle down to sleep, protected from cold and storm by her tireless devotion. Probably the little ones do not leave much scent; but the fox, racoon, mink, weasel, dog, and cat may cross their trail at any moment, crows, owls, and hawks menace them; yet commonly about half of them escape all danger and grow and thrive while the summer waxes and wanes. They learn to fly by the end of the first week. Before they are half grown they leave the ground at night, and roost with the mother in the trees.

When the "leaves begin to turn" the well grown brood seeks the wild grapevines and the wild apple and thorn trees that it may eat the fruit. When the first heavy snow falls the few that have safely run the gantlet of the guns squat beneath the low-spreading branches of some ever-green tree and calmly allow the snow to cover them if it will. They are ready for winter now, and have donned their snowshoes. What! really? Yes, actually. They have grown horny processes on both sides of the toes which will help to support their weight on packed snow or thin crust, and they are perfectly at home on or under the snow. If a crust



A YOUNG GROUSE

This grouse was but nine months old. At this age the male is not distinguishable from the female.

freezes over them, they make their way beneath it, feeding on twigs and ground vegetation until they can break out. When pursued they dive from on wing into the snow, and push their way below the surface, to burst out again farther on. It is exceedingly difficult to starve the grouse. They will live on frozen twigs, buds, laurel leaves, sumac berries, or birch and alder catkins. So my notebooks cover the history of the grouse through all the seasons of the livelong year.

THE BOB WHITE

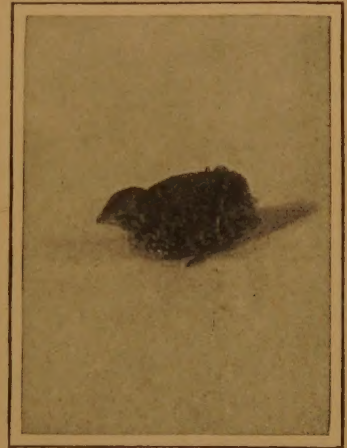
"Bob white! You bob white!" cries a brave little fowl from the top rail of the old fence. His call is the embodiment of cheerfulness. There is something heartening in the sound. This is due in part to its rich and vigorous quality, and in part to its rising termination—the question in the final note—as if it said "All right there, Fellows?" How different from the note of the whippoorwill, with its falling inflection and its general expression of sad finality. The whippoorwill may be a cheerful bird. One is inclined to doubt it; but we *know* Bob White is happy. Just hear him! He looks it too. Thus this cheerful little optimist makes his way to the hearts of men. Even the sportsmen who slay him love him, and are often his best friends,—after the shooting season,—and the epicure loves him—on toast. Down South they call him partridge. In the North he is known as the quail; but the ornithologists, who try to settle such matters for all, have taken his word for it and have named him Bob White.

This cheery little manikin is about the most important North American bird that flies, not excepting even the American eagle. He is the



BOB WHITE IN WINTER

These little birds have a hard time finding food when the snow is on the ground.



A YOUNG BOB WHITE

farmer's friend. Almost every insect pest of the garden and field is grist for his mill. All spring and summer he slays his thousands and tens of thousands, and in the fall he fattens up on millions of weed seeds. Yes, grain too; but only the waste grain left in the stubble. That is about all the grain he takes—and, after all this, many farmers get the sportsman to pay off the taxes on their farms for the privilege of shooting their little friend! Thus the school taxes are paid, and Bob White settles for the education of the children.

The pursuit of Bob White is a blessed boon to many jaded and brain-wearied business and professional men. Some believe that they have lengthened their lives by trying to shorten his. How the bird has survived with so many "friends" thirsting for his blood is hard to tell; but for all his trustfulness he is not so easily taken. Many gunners have believed that he can sometimes fool the best dog by "holding his scent." I have seen him several times squat close to the ground on the approach

of a dog, draw his head flat between his shoulders, and "sit tight" while the dog poked along, his nose to the ground, absolutely unconscious of the whereabouts of the little bird; but let a man appear, and the bird shows more anxiety and takes greater pains to get away or hide. I have seen him, when alarmed, disappear as if he had put on a coat of invisibility, and then, when the danger was past, grow out of the scenery, and walk right toward me from the very spot on which my



YOUNG BOB WHITES

The birds in this group are seven weeks old.

powerful glass had been focused all the time. How he does this is another story.

Why talk about his habits? Everybody who does not know them can have a good time studying them; for his life is open for all to see. What concerns us most is how we can make this useful, companionable friend to man more plentiful. In the District of Columbia they have solved the problem by forbidding shooting for the last few years, and there in some places the chorus of Bob Whites sounds like that of the little frogs in springtime. A close season for five years on this bird would do more

to stock the country than any other method now known; except, perhaps, in the northernmost part of its range, where it is sometimes almost exterminated by a severe winter. Eventually artificial propagation may solve our problem; for Bob White is a very prolific bird.

THE WILD TURKEY

The ruffed grouse may be the king of game birds in the field; but the wild turkey, the largest game bird that flies, is to my mind king of them all on the table. A young wild turkey, well roasted, is a dish for the gods. The domesticated turkey is not in the same class; nor is it a descendant of our wild turkey. It was bred from the Mexican turkey, a bird of another race; not so handsome as ours, and having a white rump. This turkey was domesticated by the Aztecs, and hundreds of thousands were bred by them in domestication long before America was discovered by Columbus. Europeans received the bird from the hands of the Indians. The white man never has succeeded in domesticating any American game bird sufficiently to bring it into general use. The task still lies before us. The American Ornithologists' Union now recognizes but one species and five subspecies of the wild turkey, all of which are natives of this continent.



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THE WILD TURKEY

Often called the grandest bird of America.



WILD TURKEY

This picture shows a female with its young. It is reproduced from one of the famous set of plates of "Birds of America," made by J. J. Audubon.



A WOODCOCK

The range of the species formerly extended over Mexico, most of the United States, and into southern Ontario. The early explorers found it roving in large flocks along the Atlantic seaboard, and at times migrating in great armies in search of food.

We can form little idea today of the former almost incredible abundance of these noble birds. Our forefathers were accustomed to hunt them for the Thanksgiving dinner, and they rarely failed to secure a good supply. The bird is now extinct through the greater part

of its former range. It was hunted, trapped, and shot at all seasons, and is likely to vanish from the earth unless it can be propagated under partial domestication and restored to its former habitat.

THE CANADA GOOSE

There is a quality in the cry of the wild geese returning northward in the spring that stirs the blood of all to whom the "Red Gods" call. That wild and solemn clamor ringing down the sky is as "the voice of one crying in the wilderness." All eyes are turned to follow the baseless triangle drifting fast across the sky. What memories are awakened by that resounding call,—memories of open marsh or prairie, sounding shore and placid bay, lake or river, scenes of a wilderness of waters or of plains; for the wild goose is a bird of the waste places! Two hundred years ago it nested over the greater part of the continent; but civilization and market hunting have confined it now mainly to the vast morasses of the North, where it seeks some island in the marshy lands and there makes its nest.

The goose normally mates for life, and as its life is reckoned to last about one hundred years the partnership, barring accidents, is a long one; but life is full of accidents. The goose does not reach maturity early, and therefore does not breed for the first few years. The gander is not such a goose as he looks; for in his constant watch over mate, nest, and young he shows both courage and sagacity. He defends his mate and brood to the utmost extremity. He is



RING-NECK PLOVER

This bird mother is brooding a chick.

said to be a victor sometimes over the crafty fox, and he easily drives away the deer or elk when his young are in danger. The goslings take to the water early; but they like to go ashore to feed on the green grass and herbage of the uplands, and there they often run into trouble. One of their greatest aquatic enemies is the snapping turtle. I have known one of these monsters to capture a full grown goose by catching its foot. In the fierce struggle that followed the goose escaped only by tearing its leg from the socket, and died a miserable death from the result of its fearful wound.

When advancing winter seals the waters of their northern home, the geese gather in flocks, rise in air, and turn their faces to the south. They travel by well known landmarks, and unlike many sea fowl often become confused in a fog. Therefore, I believe they never intentionally fly out of sight of land; though they often cross wide bays and inlets.



CANADA GOOSE

The male is standing and the female sitting.

THE MALLARD

The mallard is a cosmopolitan, the wild duck of the world, the progenitor of the domestic duck, and the chief water fowl of the game preserve. Its eggs and flesh formed a considerable part of the food of Indians and early settlers. Vast numbers of mallards formerly bred not only in Canada and Alaska, but in the western United States. Tons and tons of these birds were killed for their feathers by Indians and halfbreeds in the South and West. Boats loaded to the gunwales, wagons piled with ducks, to be given away; tons of birds spoiled before they could be shipped, then hauled out and dumped into the coulées; markets glutted and marketmen unable to handle the birds,—these were all episodes of the time of plenty. The result of this appalling waste, and the settlement of a large part of their breeding grounds, has been a tremendous decrease in the number of mallards in the country; but the birds may be readily replaced by protection and artificial propagation, and the mallard is not in any immediate danger of extinction.

It nests in marsh or slough wherever it is undisturbed. The little ones, when hatched, soon reach shallow water, where they are perfectly

at home. They swim about the sedge and water plants, catching insects, and when danger threatens keep concealed and sheltered by the herbage. They are often in peril, not only from hawks, owls, eagles, gulls, and herons, foxes, minks, and dogs, but they are attacked on all sides in their own element. Great frogs and fish spring to seize them with open mouths. Turtles prey upon them, and in the South alligators devour many. When a dog scents the little family in shoal waters and rushes in, the mother throws herself in his way and flutters off as if sorely wounded. While he chases her eagerly, his open mouth close to her tail, the little ones dive and swim away, more under water than above it, and, leaving the slough, crawl through the grass to the next refuge, hiding there safely until all danger is passed. Inherited experience has taught them the

way of life, that their species may be perpetuated.

THE CANVAS- BACK

Long live the canvasback! His fame has gone farther, perhaps, than that of any other American game bird. Some epicures rank him above the little-neck, the lobster, or the terrapin, and he is considered a greater luxury than quail on toast. Yet the canvasback, when deprived of its favorite food, the wild celery, is hardly superior to the despised mud-hen. Wilson tells us that many years ago a vessel loaded with wheat was wrecked near Great Egg Harbor. The



BLACK DUCKS

The birds are gathering to feed.



BLACK DUCKS

These birds were purposely flushed and taken on the first upward spring.



DUCKS SWIMMING ACROSS A BAY

wheat floated out in quantities, and soon the bay was "covered" with a new kind of duck unknown to the local gunners. They had great sport for three weeks, shooting canvasbacks, and sold them for twenty-five cents a pair; but did not discover the particular excellence of their flesh. They finally learned what they were and that they might have disposed of them for four times the sum they had received.

Redheads, which feed to a great extent on wild celery, often appear on the table masquerading as canvasbacks. In one case, at least, the gunner sold to some innocent clerks a lot of fish-eating sheldrakes or mergansers under the name of canvasbacks. I am told that the dishes that resulted were about as palatable as a bundle of old stewed kerosene lamp-wicks.

No longer ago than 1850 canvasbacks hovered in interminable flocks about Chesapeake Bay. Over ten thousand people were accustomed to shoot there. These ducks were then plentiful in all first class restaurants and hotels of the East. The glories of Chesapeake Bay as a shooting ground have largely departed, and canvasback ducks are now rarely seen on tables where they formerly appeared often; but there is still a stock of breeding birds left, and with adequate protection it will be long before we see the last of the species. So far as I know, no one has as yet succeeded in breeding this bird in captivity. Therefore we cannot depend on artificial propagation; but must protect the stock of wild birds.

SUPPLEMENTARY READING—Wild Fowl of North America, and North American Shore Birds, by Daniel Giraud Elliot; Feathered Game of the Northeast, by Walter H. Rich; American Game Bird Shooting, by George Bird Grinnell.

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Editorial

The legend of The Mentor must by this time have become familiar to all readers. It is printed on the cover, "A Wise and Faithful Guide and Friend." We have been asked the origin of this. The phrase is quoted exactly from the definition of MENTOR as given by one of the highest authorities in the English language. We are glad that some one asked this. It is the sort of inquiry that makes our mail interesting. The character of correspondence that comes to The Mentor is extraordinary. It is the natural response to the offer of service that The Mentor extends. The keynote of The Mentor Association plan is *helpful service*. Our mail shows that there is a large public that is eager and earnest in its desire to benefit by this service. It seemed to us that we could not express the spirit of The Mentor better than by quoting literally the phrase that defines the word—"a guide and friend."

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In return The Mentor reader can be in the full sense a guide and friend to us. There must be an exchange in order to get the greatest good out of an educational plan. You can help us if you do as many others have done—write and tell us what you think of The Mentor. A number of valuable suggestions have come to us in the mail. Under the stimulus of the encouragement that we have had from so many we are broadening the plan in the future. Our new prospectus, just fin-

ished, will tell you fully about this. It is not simply a magazine subscription that we are concerned with. We offer a membership in an Association that brings many advantages. There is a saying, "It is a good thing to be doing a good thing, and it is a good thing to know that you are." We know that The Mentor is a good thing, and it is a good thing to be told so by so many. A member of our Advisory Board, Dr. Hamilton W. Mabie, wrote us recently: "The Mentor is really a triumph of high class work and popular treatment. I believe that the very best things can be given to people in the very best way, not by writing down, but simply by using standard language instead of technical language. The more I think of the whole enterprise, the more I believe in it."

★ ★ ★

We want to know what you think of The Mentor, and we want you to tell us how we can be of benefit to you as a member of the Association. Our service is not complete in simply sending you The Mentor and the pictures week by week. We can bring you in touch with our Advisory Board, so that you may have the best advice in matters of side reading, and intelligent direction as to the organization and conducting of reading clubs; also expert information concerning books and pictures that bear on the topics in The Mentor. In the day's mail we find one inquiry from a member of a reading club who wants to know what side reading she should take up to prepare for an evening on "American Landscape Painters." The copy of The Mentor treating that subject is to be the core and center of the evening's reading. The writers of authority associated with us enable us to give our correspondent the benefit of the best advice.

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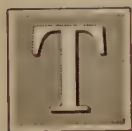
Another writer asks for a selection of pictures suitable for wall decoration in the schoolroom, leaving it to us to suggest appropriate subjects. This is the sort of inquiry that we delight in, and we can help of course, for we have a great store of good art material, to which we are adding each week and from which a wide variety of subjects can be selected.



GAME BIRDS OF AMERICA

*Ruffed Grouse (*Bonasa umbella*)*

— ONE —



HE drumming of a ruffed grouse is like the sound of a rattlesnake: only those who have heard it know what it is like. It seems to come from any part of the thicket or woods, like the voice of a ventriloquist. Sometimes it resembles distant thunder or the rumble of wheels. Early in spring the male steps cautiously out on a

log, first making sure that no fox or weasel is hiding near. His rich chestnut hue, with purple or bronze on the ruffs, and white-barred tail, harmonizes beautifully with the shadows of the surrounding spruce thicket. Then he rises on tiptoe, and with wings held out a little way from the body begins his thump, thump, thump—faster and faster until it dies away in a mere rumbling. Hunters at one time supposed that this sound was made by the wings striking against the log or stump; but it is now known to be produced by rapid vibration of the quill feathers. Usually there are hen grouse nearby who sneak up through the leaves to watch his performance. He takes them all if he can find them, for the grouse cock prefers a harem; and they go about in a flock together. Day after day the drummer returns to his favorite log, until the warm weather comes on.

Sportsmen often speak of shooting pheasants, when in reality they mean grouse; for there are no native pheasants in the United States, the nearest approach being, strangely enough, our wild turkey.

Often the ruffed grouse is spoken of as a partridge—and where that is so Bob White is called a quail.

Still plentiful in spite of many thousand guns aimed at its life, the grouse ranges over the whole of northern North America, making short migrations in search of food or winter quarters. Sometimes when wintering in tall timber it eats great quantities of laurel buds; which, gunners say, makes the flesh highly poisonous for food. The survival of this game bird in such great numbers is due in a large measure to the whirl of its flight, which serves a double purpose, startling the gunner and warning all other birds in the neighborhood. Some sportsmen never become accustomed to the sound; but are always unnerved and powerless to shoot the bird that makes it. One gunner, after having stood paralyzed before each grouse as it started up near him and whirled away out of range, roused himself with a desperate effort, and as the next thundered away brought the gun to his shoulder, shouting "Bang!" at the top of his lungs, while the grouse sped on unharmed.



GAME BIRDS OF AMERICA

Bob White (Colinus virginianus)

— TWO —

BOB WHITE is a brisk, enterprising little fellow with a heart full of hope, as his cheery greeting will tell you. He has been subjected to much discussion. "Bob White is quail," say some; others insist that there are no quail in America and that Bob White is partridge. An acknowledged authority states that Bob White is called

quail in the North and East, while in the South and West he is partridge. Wherever the ruffed grouse is called pheasant Bob White is called partridge; where the grouse is known as partridge Bob White is called quail.

And we all know what he calls himself whenever he has his little say—and what he says of himself is gladly accepted everywhere. Bob White is a popular favorite among game birds on account of his attractive habits and the fact that he is to be found in almost all sections of the country—and wherever found he displays the qualities that make good hunting. He lives more in the open than the ruffed grouse, and by his admirers he is counted a finer game bird.

Bob White varies in color, in size, and in quality as a game bird in various sections of the United States, West Indies, Mexico, and Central America. As the ruffed grouse becomes less common and more difficult to get, on account of the disappearance of our forests, Bob White

is assuming more and more the rank of the leading American game bird. For that reason the game law is strict, and sportsmen are much concerned in propagating the species. The effect of this is to change somewhat the qualities that have characterized Bob White in different localities. For example, the robust, hardy, and large-sized Bob White that was known in the New England States in past years is now extinct, and it has been replaced by a somewhat less sturdy type of bird introduced from Kansas and the Carolinas. These birds, not accustomed to the rigorous winter of the northern states, have a hard time when the weather is bitterly cold. In a severe winter in New England poor little "planted" Bob White is, in the most pathetic sense of the phrase of the day, "up against it." He has to be sheltered and fed largely by his human friends. Some day, no doubt, as the natural law of survival works it out, Bob White will grow hardy and self-sustaining under the severest conditions in the northern states.



GAME BIRDS OF AMERICA

Wild Turkey (Meleagris gallopavo)

THREE

IMAGINE an old gobbler leading his hens about the forest near some Puritan settlement. They stretch their long necks here and there over the leaves, picking up acorns and chestnuts, when suddenly one finds a grain of corn, and another, and another, leading off in a straight line. Away go the turkeys scrambling over

one another, and the greedy gobbler makes sure of his share. The train of corn leads along through dense underbrush, turns sharp to the left and under an old log. Without noticing what is beyond, the turkeys go down through a trench, their heads to the ground, and come up on the other side of the log, where there is more grain spread all round. After a few minutes the corn is eaten, and the gobbler looks around for a hole to get out by. He finds that there are four dark walls surrounding his flock, and overhead are logs with space enough between to let in the light, but not to let out the turkeys. They walk around craning their necks up at the light; for they have bad memories, and depend on sharp eyesight to get them out of trouble. The trench goes down under the log, and therefore no light comes through it—a circumstance that the turkey does not think about. So the poor gobbler and all his flock stay in the trap, because they do not know enough to go out the opening they came in by.

The turkey does not come from the Turkish empire; but is a distinctly American bird. The Pilgrim fathers, when they heard it say, "Turk, turk, turk" may have thought of that name, or it may have been given by those adventurers who first carried the bird to Europe. Turkeys were domesticated in Mexico by the Montezumas, and specimens were taken from there to the West Indies about 1520, and introduced from the West Indies into Europe. Later the European birds were brought to America. Our domestic turkey therefore is a Mexican bird, differing from the native turkey of this region.

Wild birds are now rare. In the southern Adirondacks and even parts of the West, where there are still enough to tempt the hunter, they furnish excellent sport; for the old gobbler is a wise bird when traps are forbidden. The usual method of hunting is by tracks in the snow,—a difficult sport, requiring especial skill; for the turkey flies long distances if pursued. In the West it has been hunted on horseback with greyhound.

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GAME BIRDS OF AMERICA

Canada Goose (*Bernicla canadensis*)

— FOUR —



HERE is no more exhilarating sound in nature than the sonorous honking of wild geese. Who has not at some time in his life heard, far aloft, the well-known trumpet "*Honk!*" and the prompt answers all down the two lines as the V-shaped flock winged swiftly forward? Usually the geese fly in a broad, V-shaped line; but

this is not constant, and one sometimes sees them flying in a long, whiplike curve. This seems to be when they are temporarily disturbed, as by some strong change in the air currents. But it seldom lasts long, as the birds soon rearrange themselves in their geometrical angle formation. In the raw, windy days at winter's end, as the flocks fly north, the old gander's cry is accepted as a guarantee of spring, and hailed with joy.

The Canada goose is the largest of the wild geese of North America. Its average length is about thirty-five inches, and it usually weighs fifteen pounds or even more. This bird has a jet black head and neck, with a conspicuous white crescent encircling the throat. The black on the neck ends abruptly where the neck joins the body, and the general tone of the latter is gray-brown. Its neck is longer, and generally more slender, than those of other birds.

There are few warier birds than the Canada goose. Unless the hunter has much experience or exceptional advantages, he will find them very hard to get. The number of birds that still survive testify to the wariness, the keenness of vision, and the good judgment of this much prized bird. For this reason they will probably long continue to lend their wonderful charm to our spring and autumn skies, and to be an inspiring index upon which the weatherwise base their forecasts.

The Canada goose winters in Texas, along the Gulf of Mexico, and in the sounds and bays of Virginia and the Caro-

linas, and goes north early in the spring. In the summer it inhabits the far North, from Labrador and the Saskatchewan regions north to the Arctic Ocean. In August, like many of the ducks, these birds molt the entire wing, and at that season their chief enemies are the Indians and Eskimos, who catch them in great numbers.

However, for eating the gander is not very good. His flesh is strong, tough, and unpleasant. The females and tender goslings are far more highly prized as food.

The gander is very energetic and courageous in defending his mate on the nest. W. T. Hornaday, director of the New York Zoological Park, tells an anecdote that illustrates this. "Last spring," he says, "two of our geese paired off and built a nest on the south bank of the Mammals' Pond, in a very exposed situation. From that time until the young were hatched the gander never once wandered from his post. It was his rule never to go more than sixty feet from the nest, and whenever anyone approached it he immediately hastened to intercept the intruder, hissing and threatening with his wings in a most truculent manner. Had anyone persisted in disturbing the female he would willingly, even cheerfully, have shed his blood in her defense. His unswerving devotion to his duty attracted the admiring attention of thousands of visitors, and the proudest day of his life was when the first live gosling was led to the water, and launched with appropriate ceremonies."



GAME BIRDS OF AMERICA

Mallard Duck (*Anas boscas*)

FIVE



ONE day late in May a number of years ago, W. T. Hornaday, director of the New York Zoölogical Park, when collecting in Montana, found a little water hole, hardly ten feet in diameter, hiding in the sunken head of a dry coulée. All around in every direction for miles and miles the sagebrush, shimmering in the heat of

the early summer, stretched in a billowy sea. But as he dismounted for a drink, up from her nest in the sagebrush by the side of the pool rose a mallard duck. "And," says Mr. Hornaday, "as I gazed in astonishment at this nest and its contents beside an insignificant bit of water in a landscape that was certainly not made for ducks, I understood how it is that this bird has been able to spread itself all around the northern two-thirds of the globe."

The mallard is the best known and most generally distributed of wild ducks. It is found throughout the entire northern hemisphere. It is the most cosmopolitan of all wild fowl, and the original stock of our numerous varieties of tame ducks.

The mallard is wary and wise. It is one of the largest ducks; it is one of the handsomest; it is very strong on the wing, and highly intelligent. The drake, with his shining green head, mahogany breast, violet striped wings and pearl-gray body, is one of our most striking and beautiful ducks. The female is a very different looking bird. She is of a modest brown color, streaked with black.

Mallards are hardy birds. While the center of winter abundance is in the southern middle districts, still a number remain in the New York state marshes until they freeze over, frequently into December, so that they are found in company with canvasbacks, redheads, and the big bluebills.

In England the mallard is known as the stock duck, because it was the original stock from which the domestic duck has

descended. It pairs very early in the year. The ceremonies of courtship require some little time; but soon after these are performed the respective couples separate in search of suitable nesting places. A little dry grass is usually collected, and on it the eggs, from nine to eleven in number, are laid. As soon as incubation begins the mother starts in to divest herself of the down that grows thickly beneath her breast feathers, and adds it to the nest furniture; so that the eggs are deeply imbedded in this heat-retaining substance—a portion of which she is always careful to pull, as a coverlet, over her treasures when she leaves them for food.

However, the mother rarely leaves the nest during the hatching period. When all the eggs are hatched the brood is led carefully to water, and throughout the summer the mother watches over the chicks until they are full grown and feathered.

During the summer the mallard molts all the wing feathers at once; so that for a month he is unable to fly. Were the drake, with his conspicuous coloring, to be left thus helpless, the species would not long survive, as he would be an easy prey for all the carnivorous enemies that surround him. So nature has provided a temporary protection in the so-called "eclipse" plumage, which, closely resembling that of the female, is worn only during midsummer while the wings are growing, to be supplanted by the rich suit in which we see him on his fall trip to the South.



GAME BIRDS OF AMERICA

Canvasback (Fuligula vallisneria)

SIX

THE canvasback, most famous of wild fowl, is a purely and exclusively American species, ranging during the year over practically the whole North American continent. But now this duck is little more than a bird of history. It has been almost exterminated by the gunners. Once the delight of the epicure, it promises soon to

become a curiosity. Canvasbacks breed principally in the interior of British America and Alaska. They make their first migration southward during October. As they are a very hardy bird, many canvasbacks spend the winter in the northern states. But it is in the middle and southern states, particularly in the Chesapeake, that they congregate in greatest numbers.

When they have fed for sometime upon the *vallisneria* or wild celery, their flesh is unexcelled among wild fowl. But if they are not able to get this food they taste very little better than the poorer species, and are far inferior to such river ducks as the mallard, the dusky duck, gadwall, teal, or pintail.

Canvasbacks closely resemble redheads in general appearance. But the long, straight black bill and darker forehead are characteristic of the canvasback alone. The redhead has a moderately short bluish gray bill and a uniform light chestnut fluffy head.

Often redheads are substituted for canvasbacks upon the unknowing purchaser. On the same feeding grounds one is about

as good as the other. The fraud consists in that while the price of the redhead is very reasonable, that of the canvasback is fabulous.

The canvasback comes nicely to decoys usually, particularly if live dusky ducks are used. But they become very cautious if they are much hunted, especially in the North, where they go generally in pairs or small companies. No statelier duck swims than the game and cautious canvasback at such times. Aristocratic head held high, he warily draws in toward the lures. Every sense is alert. He is ready for an instant spring at the slightest movement or sound. Canvasbacks are expert divers. If only wounded they are hard to retrieve. They will dive and swim long distances under the surface, coming up in the rushes and cattails at the edge of the water. There it is almost hopeless to try to recover them.

■ These ducks are swift flying and strong. Their average length is about twenty-two inches. The males look very white when on the wing. The females have much the appearance of redheads.